



Borough of Southend-on-Sea.

SPECIAL REPORT

ON THE RECENT OUTBREAK OF

DIPHTHERIA

BY

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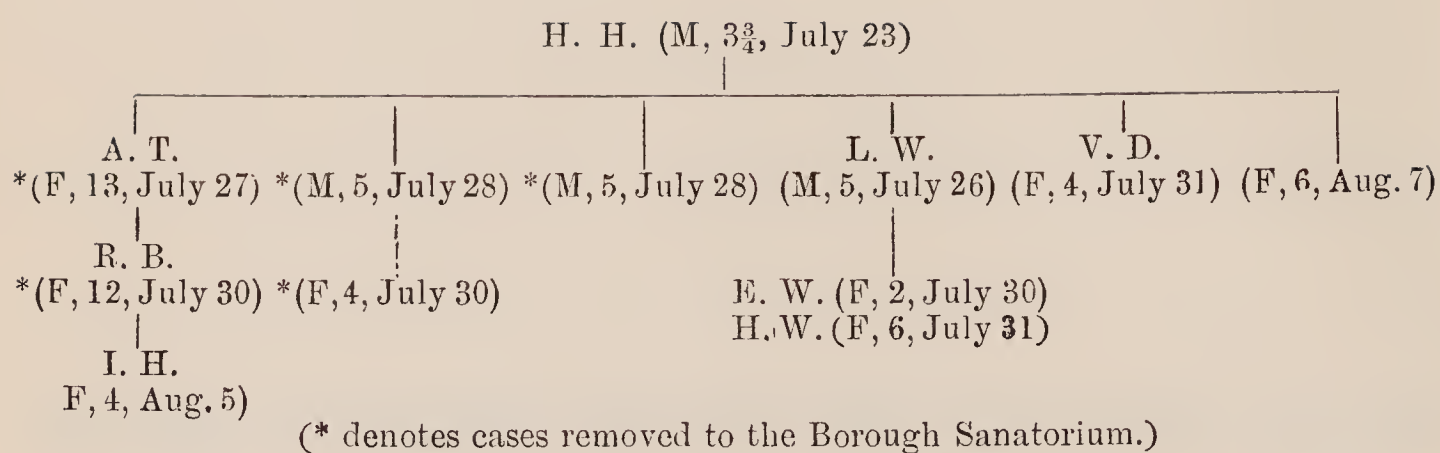
SPECIAL REPORT BY THE MEDICAL OFFICER OF HEALTH
ON THE RECENT OUTBREAK OF
DIPHTHERIA

IN THE BOROUGH OF SOUTHEND-ON-SEA,

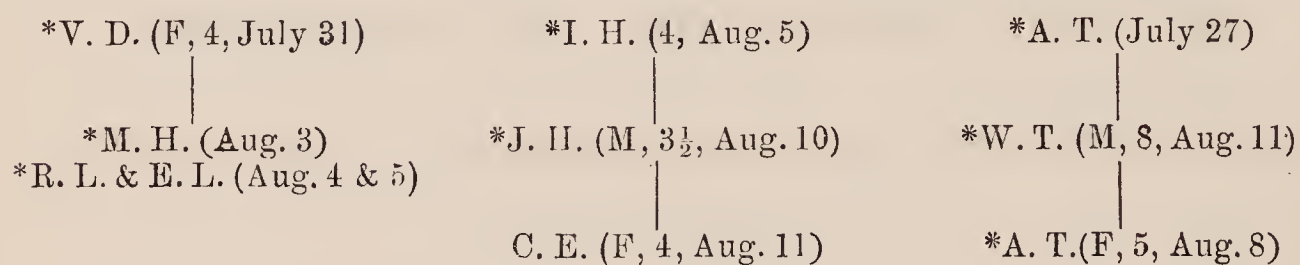
TO THE TOWN COUNCIL, LOCAL GOVERNMENT BOARD, AND THE
ESSEX COUNTY COUNCIL.

On 23rd July, 1902, after a period of comparative freedom from Diphtheria, a notification was received of a case occurring at 51, ——— Road, in the person of H. H., a male child, aged 3 years and 9 months. This child was moribund when the notifying practitioner was called in, and died the same day. The parents had not suspected an infectious disease, and no precautions had been taken. The child had been attending at the infants department of the Brewery Road Board School up to 18th July. Two other children in the house were attending at the Brewery Road Schools up to the 23rd July. The Schools closed for the summer vacation on 24th July, but in the meantime several children had received the infection. A boy, L. W., aged 5, who had been attending the Brewery Road School up to 24th July, was notified as suffering from Diphtheria on 26th July; he had been in contact with H. H. at school.

The Brewery Road Board Schools broke up for the Summer vacation on 24th July, but the seeds of infection had already been considerably distributed, as seen by the following notifications occurring among children who had been attending at the School in question. Dates of notification, sex, and age are given in brackets.



On 1st August, M. B. *(F., 8), and E. B. *(M., 6), brother and sister, were notified ; M. B. died the same day. These children had also attended the Brewery Road Schools. Secondary cases began to crop up in connection with some of the above as follows :



The above primary and secondary cases occurred in the adjoining parts of Southchurch, All Saints' and St. John's parishes among families whose children had attended the Brewery Road Schools in July. In addition to the above, on 24th July a case of Diphtheria was notified at 73, N—— Road, St. Mary's, but was not recommended for admission to Hospital. This patient died on the 27th July. On 9th and 10th August, two more notifications from the same house were received.

On 11th August, a boy, aged 2, living at 2, B—— Terrace, was notified as suffering from Diphtheria, and died the same day before he could be removed to Hospital. Defective sanitary arrangements were found in this house, and on an adjoining waste piece of ground various offensive matters were found, including the decomposing remains of an animal (dog). On the 13th, another male child, aged 5, was notified with Diphtheria from the same house. On the same date another case was notified at 1, D—— Road, but this was a doubtful case. On 14th August, I received a notification of Diphtheria in the person of a child, aged 3, who had arrived the previous day from Harringay. This child was also suffering from Whooping Cough. This is an instance of the manner in which infectious diseases are imported into the Borough. On 15th August,

two cases were notified. Enquiries made gave 3rd August as the date of onset in one of these. This illustrates another method by which infectious diseases are spread. Parents under-estimate the gravity of a "sore throat," and medical advice is not obtained for several days. In the meantime the infected person is not isolated, and the disease is spread. Importation of the disease and non-recognition of the gravity of certain forms of sore throats on the part of parents and neglect in sending early for medical advice, and consequent want of early isolation of an infected person, are, in my opinion, the two principal sources of the outbreak.

On 16th August, a case was notified secondary to one notified on 11th August ; these two children were not removed to Hospital. On the 20th, a case was notified secondary to one notified on the 15th ; in this instance the first child had been removed to Hospital. On the 21st August, two children were notified from one family, and another boy was notified who had been in contact with a previous case. On 24th August, a boy, aged 2, was notified.

No further notification was received until the 28th August, in the person of a visitor from Islington, aged $2\frac{1}{2}$ years. On the 29th, two cases were notified, one as the result of a bacteriological diagnosis. This person was a visitor who had come to Southend with a sore throat, of which the parents thought little, as "She often has sore throats." The last case notified in August was on the 29th, in the person of a boy, aged 11, from Southchurch Parish.

Preventive Measures.—The local practitioners have been written to on the matter and advised of my willingness to examine swabs of the throat and nose of persons convalescing from Diphtheria treated at home, prior to certifying them as free from infection.

Whenever possible a notified case was received into Hospital the same day. Owing to the strain on the present hospital accommodation, consequent on the outbreak of Typhoid Fever in June and July due to infected cockles (already reported on by me to the Town Council and the Local Government Board and the Essex County Council), much difficulty was experienced in providing accommodation for all the cases notified, particularly as a few cases of Scarlet Fever also cropped up and provision had to be made for

all three diseases at one and the same time. Plans for enlargement of the Hospital have been for some time in the Borough Surveyor's hands, but, in view of the present strain and the necessity of having immediate provision for the coming autumn months, I have felt it my duty to ask the Health Committee to recommend the Council to provide immediate temporary accommodation for 12 more beds, allowing 2,000 cubic feet to each bed. At a special Council Meeting, held on 3rd September, permission was granted to expend a sum of about £300 on such provision, and a wood-and-iron pavilion will be shortly erected, pending the erection of permanent brick buildings. During August twenty-three cases of Diphtheria were removed to Hospital; during July seven cases had been admitted. After removal of a patient infected rooms and garments and bedding are disinfected; the former by fumigation with sulphur dioxide gas, followed by spraying of the walls and furniture with formalin solution, while the latter are disinfected by steam in the Borough's Steam Disinfector. If a case is treated at home similar measures are carried out when notice is received that the case is free from infection. Any insanitary condition found about infected premises is noted and remedied. In addition, the accompanying Notice and Pamphlet have been widely distributed by a house-to-house delivery, beginning with infected houses and streets. Special attention is drawn to these at each infected house on the receipt of notification.

In my monthly report for August I have once more urged on the Council the importance of an early provision of a Refuse Destructor as the only effective method of destroying organic refuse, trade and otherwise. In my opinion, collections of manure are specially detrimental, and the chief Sanitary Inspector has instructions to take all necessary measures to prevent undue accumulation, and in default to remove any accumulation. The more frequent and efficient watering of certain streets and gullies and the flushing of sewers is also very desirable—a mere sprinkling is insufficient; the roadways should be thoroughly wetted.

The chief incidence of Diphtheria has been in streets and houses, among families with children who were in attendance up to 23rd July at the Brewery Road Schools. The Schools were disinfected during the vacation by the Sanitary Authority. They

reopened on 1st September. Children attending these schools are chiefly drawn from the adjoining parts of three parishes—St. John's, All Saints', and Southchurch. The number of notified cases of Diphtheria in each parish during July and August, 1902, was as follows :—

St. John's	...	...	...	...	...	19
All Saint's	...	...	...	...	...	10
Southchurch	...	...	...	...	...	19
St. Mary's	...	...	...	...	...	5
St. Alban's	...	...	...	...	...	2
Total						55

Of the above, 30 were admitted to Hospital. Among these 30, four deaths occurred, one within an hour of admission. The other three were all late cases of diphtheria ; that is, had not been notified until several days after onset of the disease, and consequently were beyond the reach of benefit by the anti-toxin treatment, which was, however, administered in every instance. Among the 25 cases not admitted to Hospital, three deaths occurred. In two of these latter, deaths occurred within a few hours' time of a doctor being called in and before the patient could be removed to Hospital. In view of these facts, I think it advisable to here repeat what I wrote in my monthly report to the Health Committee in July last :—" Parents
 "and others should realise the importance of obtaining early
 "medical advice in all cases of sore throat. The beneficial effects
 "of Diphtheria anti-toxin are best obtained in the early stages of
 "the disease. The principal action of Diphtheria anti-toxin lies
 "rather in the prevention of the development of dangerous symp-
 "toms in Diphtheria if timely administered than in the cure of a
 "case which has progressed for some time. Anti-toxin apparently
 "prevents the poison generated by the Diphtheria germs from
 "getting into combination with the nerve cells and other cells of
 "the body by itself getting into combination first, so that there is no
 "accommodation for the Diphtheria poison. If, however, there is
 "undue delay, the poison gets into the body cells first, and anti-
 "toxin cannot then oust them. Hence the importance of getting
 "early medical advice in cases of Diphtheria in the interests of the
 "individual patient. In the interests of other children, every child
 "who shows any signs of sore throat, or a thin, acrid discharge

“from the nose, or lumps in the neck, should be kept in a room by itself away from other children until it has been seen by a doctor. The sooner it is under medical advice the better both for itself and others.”

Hints to Teachers have been sent round to the various schools. A copy of these is appended.

The Head Teacher receives a notification from me of an infected house, where a child from the house is attending school, requiring that no child shall be received from such house within a given period, or until a certificate be sent permitting re-attendance.

In addition, a form (which is to be shown to the School Attendance Officer) is left at each infected house, requiring that no children from that house shall be allowed to go to school until a certificate be given permitting re-attendance.

To sum up the preventive measures ; those adopted are—

- (1) Notification.
- (2) Isolation—in most cases by removal to Hospital—until bacteriological evidence of Diphtheria is negative.
- (3) Disinfection of infected rooms and articles.
- (4) Distribution of printed Hints to Parents as to keeping the sick and healthy apart, and as to the observation of those who have been exposed to infection.
- (5) Notification to Teachers requiring that no child from an infected house should be permitted to attend school for a time.
- (6) Instruction of Teachers in the early symptoms of some of the chief infectious diseases, so that any suspicious case might be excluded from school and notified to the M.O.H.
- (7) Bacteriological examination of swabs from suspicious cases.

Further preventive measures in the hands of the Sanitary Authority which require more attention are—

- (1) Better methods of refuse disposal.
- (2) More frequent and efficient cleansing of all streets and gullies.

J. T. C. NASH, M.D., D.P.H.,

September 8th, 1902.

Medical Officer of Health.